

Abstract:

A unique sensor is used to detect a transmission impairment that may have affected incoming optical channel signals. The sensor, more specifically, selects a group of the incoming channel signals and generates a first power signal, P_0 , over the selected group of signals and generates a second power
5 signals, P_1 , over a weighted version of the selected group of channel signals. The sensor then generates, as a function of the first and second power signals, P_0 and P_1 , a signal indicative of whether the particular transmission impairment affected the levels of individual ones of the incoming channel signals. If so, then control apparatus offsets the impairment accordingly.